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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

MEMORANDUM

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DATE: September 23, 1992

SUBJECT: Risk review comments on human health aspects, Olin Chemicals/McIntosh Plant NPL Site, Alabama.

FROM: Julie W. Keller, Toxicologist
Office of Health Assessment

TO: Cheryl Smith, Remedial Project Manager
South Superfund Remedial Branch

THROUGH: Elmer W. Akin, Chief
Office of Health Assessment

Per your request, I have reviewed **Olin's Responses to EPA's Comments on the Exposure Assessment Technical Memorandum** for the NPL Site. I have the following comments and concerns relative to Olin's responses.

General Comment No. 2.
The body of the baseline risk assessment should not consider routine health and safety provisions. Risk calculations and discussions with health and safety provisions may be incorporated into the uncertainty section.

General Comment No. 3.
For the purposes of risk assessment EPA Region IV considers the top 12 inches of of soil as surface soils available for direct exposure. Samples from the mercury waste pile storage pad and the CPC plant indicated in the response as collected from 0 to 5 feet and 0 to 10 feet should be separated into surface soil and subsurface portions.

General Comment No. 4.
The application of the residential scenario is a risk management decision. All information necessary for this decision should be available to the risk manager including the risks associated with the future onsite residential scenario.

General Comment No. 7.
The soil ingestion and inhalation pathways should be quantitated for current trespasser (or visitor) and future residents for both operable units. This response is leading to incorporation of institutional controls in the risk assessment; the NCP clearly states the institutional control should not be considered in the baseline risk assessment. Institutional controls are a risk management not risk assessment consideration.

General Comment No. 9.
In order to determine the appropriateness of subchronic exposures, a discussion of the scenarios associated with subchronic exposures should be included in Section 4. (Note: EPA Region IV does not accept subchronic RfDs as protective levels for 1-6 year old children). The Carcinogenic Risk and Hazard Index headings in Appendix D are incorrect and should be replace with "daily intake"; carcinogenic risk and/or hazard index values are not presented in this appendix.

General Comment No. 10.
A < 1.0 vlue for the fraction contaminated or fraction ingested (FI) term may be appropriate to hot-spot evaluation but not when an entire area has been considered and the 95% UCL calculated. The FI term may be appropriate to the fish ingestion scenario at this site but not to the soil and sediment scenarios (see next comment).

Specific Comment No. 19.
The development of the 0.68 term and subsequent 0.2 (FI) term are meaningless values for risk assessment purposes. The principle of an FI term for fish relating to the amount of time spent fishing in the river would be appropriate if the value for time spent fishing in the river was the result of an investigation. As presented in this document the 33 percent was estimated and apparently has no justification. Lacking justification the default FI term of 1.0 should be used to protect subsistence fishers and their families.

Specific Comment No. 22.
No bioavailability factors will be allowed in the oral pathway; there are too many variables that cannot be specifically evaluated and addition of this factor eliminates the conservative aspects of the risk assessment.

If I can be of further assistance or if you have any questions please contact me at X1586.